IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please ADD new claim 16 in accordance with the following:

1. (PREVIOUSLY PRESENTED) A driver circuit for driving a semiconductor laser in accordance with a data signal including data generated in bursts, comprising:

first bias current supply means for generating, at least at a time of non-output of data, a first bias current for driving the semiconductor laser in a predetermined area within a spontaneous emission area, to supply the first bias current to the semiconductor laser;

signal processing means for generating a pulse current control signal in which the data signal is delayed, using only the data signal, and generating a second bias current control signal that rises more rapidly by a predetermined time than the rise of the burst data included in the pulse current control signal;

pulse current supply means for generating a pulse current in accordance with the pulse current control signal generated in said signal processing means, to supply the pulse current to the semiconductor laser; and

second bias current supply means for generating a second bias current for driving the semiconductor laser in a predetermined area within the spontaneous emission area in accordance with the second bias current control signal generated in said signal processing means, to supply the second bias current to the semiconductor laser.

2. (PREVIOUSLY PRESENTED) A driver circuit according to claim 1, wherein said first bias current supply means includes a temperature compensation section for changing the first bias current corresponding to characteristic changes in the semiconductor laser due to temperature changes.

3. (PREVIOUSLY PRESENTED) A driver circuit according to claim 2, wherein

said temperature compensation section has a thermistor with a resistance value which is changed with temperature fluctuations.

4. (PREVIOUSLY PRESENTED) A driver circuit according to claim 1, further comprising:

optical output detection means for detecting the power of light output from the semiconductor laser; and

first bias current control means for feedback controlling an operation of said first bias current supply means so that the optical output power from the semiconductor laser at the time of non-output of data becomes a constant level, based on a detection result of said optical output detection means.

5. (PREVIOUSLY PRESENTED) A driver circuit according to claim 1, wherein

said second bias current supply means has a differential amplification type circuit structure.

6. (PREVIOUSLY PRESENTED) A driver circuit according to claim 1, wherein

said second bias current supply means includes a temperature compensation section for changing the second bias current corresponding to characteristic changes in the semiconductor laser due to temperature changes.

7. (PREVIOUSLY PRESENTED) A driver circuit according to claim 6, wherein

said temperature compensation section has a thermistor with a resistance value which is changed with temperature fluctuations.

8. (PREVIOUSLY PRESENTED) A driver circuit according to claim 1, wherein

said signal processing means generates said second bias current control signal which rises more rapidly, by a time corresponding to a predetermined bit number or a predetermined byte number, than the rise of burst data included in said pulse current control signal.

9. (PREVIOUSLY PRESENTED) A driver circuit according to claim 8, wherein

said signal processing means generates said second bias current control signal which is maintained at a high level over at least a predetermined period of the beginning side of the burst data generation period.

10. (PREVIOUSLY PRESENTED) A driver circuit according to claim 1, wherein

said first bias current supply means has a circuit structure the same as for said second bias current control means, and generates said first bias current in accordance with a signal

obtained by inverting the second bias current control signal generated by said signal processing section.

11. (PREVIOUSLY PRESENTED) A driver circuit according to claim 1, wherein

when a rise time of the second bias current is shorter than a time corresponding to 1 bit length of burst data,

said signal processing means comprises a delay section for delaying the data signal by a predetermined time, and a logical sum operation section for obtaining a logical sum of an output signal from said delay section and the data signal, and outputs the output signal from said delay section as the pulse current control signal, and outputs an output signal from said logical sum operation section as the second bias current control signal.

12. (ORIGINAL) A driver circuit according to claim 1, wherein

when the rise time of the second bias current is shorter than a time corresponding to 1 bit length of burst data, and also the second bias current is sufficiently larger than the pulse current,

said signal processing section comprises a delay section for delaying the data signal by a predetermined time, and outputs an output signal from said delay section as the pulse current control signal, and outputs the data signal as the second bias current control signal.

13. (PREVIOUSLY PRESENTED) A method for driving a semiconductor laser in accordance with data signals including data generated in bursts, comprising :

generating, at least at a time of non-output of data, a first bias current for driving the semiconductor laser in a predetermined area within a spontaneous emission area, to supply the first bias current to the semiconductor laser;

generating a pulse current control signal in which the data signal is delayed, using only the data signal, and generating a second bias current control signal that rises more rapidly by a predetermined time than the rise of burst data included in the pulse current control signal;

generating a pulse current in accordance with the pulse current control signal, to supply the pulse current to the semiconductor la; and

generating a second bias current for driving the semiconductor laser in a predetermined area within the spontaneous emission area in accordance with the second bias current control signal, to supply the second bias current to the semiconductor laser.

14. (PREVIOUSLY PRESENTED) A method for driving a semiconductor laser in accordance with data signals, including data generated in bursts, comprising:

supplying a first bias current for driving the semiconductor laser at least at a time of non-output of data, to drive the semiconductor laser in a spontaneous emission area;

supplying a second bias current to the semiconductor laser prior to data transmission by delaying a data signal; and

supplying a pulse current to the semiconductor laser a predetermined time after commencement of supplying the second bias current.

15. (PREVIOUSLY PRESENTED) A method for driving a semiconductor laser in accordance with data signals, comprising:

generating data in bursts;

supplying a first bias current for driving the semiconductor laser at least at a time of non-output of data;

supplying a second bias current for driving the semiconductor laser in a predetermined area within a spontaneous emission area in accordance with a second bias current control signal to supply the second bias current to the semiconductor laser; and

supplying a pulse current to the semiconductor laser a predetermined time after commencement of supplying the second bias current.

16. (NEW) A method for driving a semiconductor laser in accordance with data signals, including data generated in bursts, comprising:

supplying a first bias current for driving the semiconductor laser at least at a time of non-output of data;

supplying a second bias current control signal that rises more rapidly by a predetermined time than the rise of the burst data included in the pulse current control signal;

supplying a second bias current for driving the semiconductor laser in a predetermined area within a spontaneous emission area in accordance with a second bias current control signal to supply the second bias current to the semiconductor laser; and

supplying a pulse current to the semiconductor laser a predetermined time after commencement of supplying the second bias current.